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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/935,658 | 08/24/2001 | Elsa Jolimaitre | PET-1949 | 1667 |

23599 7590 06/18/2003

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EXAMINER

NGUYEN, TAM M

| | |
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| ART UNIT | PAPER NUMBER |
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1764

DATE MAILED: 06/18/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,658

Applicant(s)

JOLIMAITRE ET AL.

Examiner

Tam M. Nguyen

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 19-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35,36 and 38 is/are allowed.
- 6) ☒ Claim(s) 1,2,19,25-34,37 and 39 is/are rejected.
- 7) ☒ Claim(s) 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 23, 2003 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 19, 28-34, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Zinnen et al. (5,744,684).

Zinnen discloses a process for separating normal and mono paraffins from multibranched paraffins in a mixture by contacting the mixture with an adsorbent of EU-1 to produce a stream rich in mono branched paraffin, a stream rich in normal paraffin, and a stream rich in multibranched paraffin. The separating step is operated at a temperature from of 100 to 300⁰ C and at a pressure from of 6 to 500 psig (0.04 to 3 MPa). It is noted that Zinnen does not specifically disclose the characteristics of EU-1 adsorbent. However, the EU-1 adsorbent is the same as the claimed adsorbent. Therefore, the Zinnen adsorbent would have the claimed

characteristics. It also noted that Zinnen does not specifically disclose that the first fraction has a high octane and a second fraction has a low octane. However, a first fraction of Zinnen comprises multi-branched paraffins and a second fraction of Zinnen does not contain multibranched paraffins. Therefore, it is reasonable to consider that the first fraction is a high octane fraction and the second fraction is a low octane fraction as claimed. Zinnen also discloses that the second fraction is recycled back to the isomerization zone. It is also noted that Zinnen does not specifically disclose that the first fraction is consisted essentially of multi-branched paraffins. However, the first fraction of Zinnen comprises multibranched paraffins and the multibranched paraffins are an essential component in the first fraction. Therefore, the examiner's position is that the limitation "consisting essentially of multibranched paraffins is embraced by the reference. (See entire patent)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 25-27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinnen et al. (5,744,684).

Regarding claims 25-27, Zinnen does not specifically disclose the origin of the feed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Zinnen by using a feed from the claimed sources because the Zinnen feed is similar to claimed feed. Therefore, where the feed comes from does not affect the outcome of the Zinnen process.

Regarding claim 37, Zinnen does not disclose that the feed has paraffin content between 30 and 80 % by weight. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Zinnen by using a feed which contains the claimed amount of paraffins because the adsorption zone of Zinnen is effective to separate multi-branched paraffins from normal paraffins and because components other than paraffins in the feed will not be absorbed in the adsorption zone. Therefore, it would

be expected that the results would be similar when using the claimed feed in the process of Zinnen.

Allowable Subject Matter

Claims 35, 36, and 38 are allowed.

Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: No prior art of record discloses or renders obvious a process of separating multibranched paraffins from a hydrocarbon feed containing 5 to 8 carbon atoms per molecule by contacting the hydrocarbon feed with a zeolite (e.g., NES, MWW, NU-85, NU-86) as called for in claims 20-23 and 35.

Also, no prior art of record discloses or renders obvious a process of separating multibranched paraffins from a hydrocarbon feed containing 5 to 8 carbon atoms per molecule by contacting the hydrocarbon feed with a zeolite (e.g., EUO, NES, MWW, NU-85, NU-86) which is mixed with a zeolite type LTA as called for in claims 24 and 36.

Response to Arguments

The argument that first fraction of Zinnen does not consist essentially of multibranched paraffins is noted. However, the argument is not persuasive because the first fraction of Zinnen comprises multibranched paraffins and it is an essential component in the fraction. It is

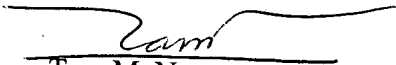
reminded that the term "consisting essentially" does not display the amount of multibranched paraffins in the stream.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (703) 305-7715. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Tam M. Nguyen
Examiner
Art Unit 1764

Tam Nguyen/ TN
June 16, 2003